### Python Fun(damentals)

#### **Poetry Usage & Setup**

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- \* Directory Structure
- \* Config Files



### **Python Poetry Package Manager**

The venv module provides support for creating lightweight "virtual environments" with their own site directories, optionally isolated from system site directories.

- Near all the same capabilities of pipenv.
- Poetry comes with an exhaustive dependency resolver.
- Poetry either uses your configured virtualenvs or creates its own to always be isolated from your system.
- The most intuitive CLI on the market.
- Uses the newest PEP standards.
- Fully managed build systems and publishing of Python modules.
- The Package manager we will use going forward.

# Using poetry

poetry provides a handy set of tools to work with virtualenvs locally.

We will start with building our very own env like we did with other tools, only difference is poetry will even scafold the project for you:

```
$ poetry init
Author [None, n to skip]: n
License []:
Compatible Python versions [^3.7]:

Would you like to define your main dependencies interactively? (yes/no) [yes] no
Would you like to define your development dependencies interactively? (yes/no) [yes] no
Generated file

[tool.poetry]
name = "01_python3_tooling_build_systems"
version = "0.1.0"
...:SNIP::..

Do you confirm generation? (yes/no) [yes] yes
```

# Using poetry Cont.

We now can start adding packages to our new env:

```
$ poetry run python --version
poetry
```

We can also go into a interactive shell like we did with pipenv:

```
$ poetry shell
ypoetry/virtualenvs/01-python3-tooling-build-systems-3FZumH0Q-py3.7/bin/activate
(01-python3-tooling-build-systems-3FZumH0Q-py3.7) $
```

# Installing packages with poetry

We now can start adding packages to our new env:

```
$ poetry add requests
Using version ^2.23.0 for requests
Updating dependencies
Resolving dependencies... (0.2s)
Writing lock file
Package operations: 5 installs, 0 updates, 0 removals
  - Installing certifi (2020.4.5.1)
  - Installing chardet (3.0.4)
  - Installing idna (2.9)
  - Installing urllib3 (1.25.9)
  - Installing requests (2.23.0)
```

## Lab\_5.py

#### **Tasking**

Using the new poetry command perform the following:

- 1. Go into the O1\_python3\_tooling\_build\_systems/ folder, notice we provided a pyproject.toml already.
- 2. Using poetry install pytest.
- 3. Ensure you have a pyproject is now updated with the new package.

#### **Testing your work**

**NOTE:** you should see Green PASS statements indicating you completed the lab

```
$ poetry shell
$ python lab_5.py
```